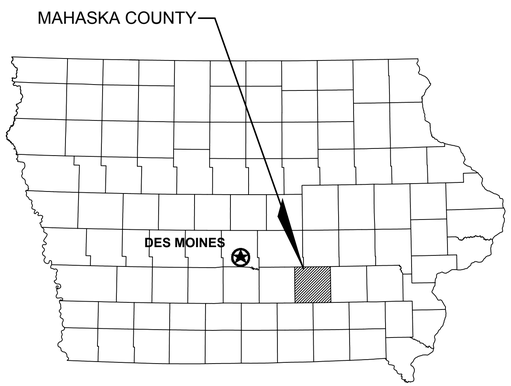
BLIZZARD (IA-057R)
AML TILING REPAIR PROJECT

E ½ SECTION 10, TOWNSHIP 74N, RANGE 17W, MAHASKA COUNTY

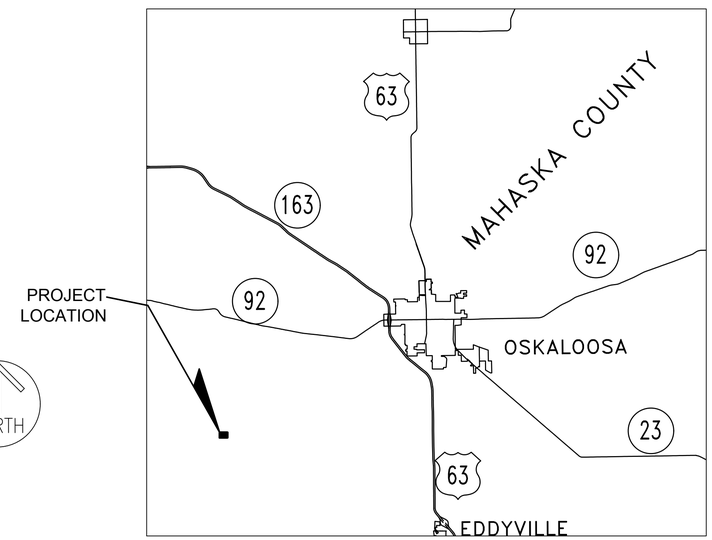
DIVISION OF SOIL CONSERVATION AND WATER QUALITY
IOWA DEPARTMENT OF AGRICULTURE AND LAND STEWARDSHIP

GRANT NUMBER: S15AF20016

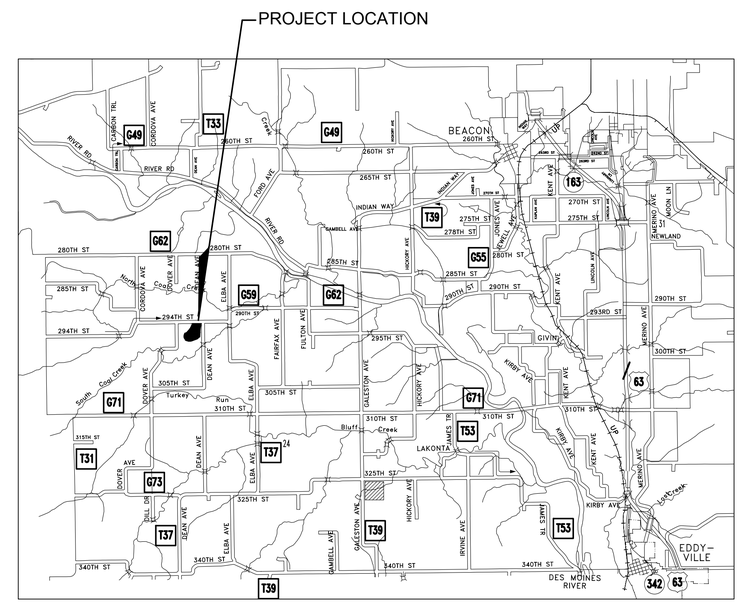
FUNDED BY:
U.S. DEPARTMENT OF THE INTERIOR
OFFICE OF SURFACE MINING RECLAMATION AND ENFORCEMENT



STATE OF IOWA



MAHASKA COUNTY



LOCAL VICINITY

PREPARED FOR:
DIVISION OF SOIL CONSERVATION
IOWA DEPARTMENT OF AGRICULTURE & LAND STEWARDSHIP
HENRY A. WALLACE BUILDING
502 E. 9TH STREET
DES MOINES, IOWA 50319
(515) 281-4246

ENGINEER:
SHIVE-HATTERY, INC.
4125 WESTOWN PARKWAY, SUITE 100
WEST DES MOINES, IOWA 50266
PHONE - (515) 223-8104
FAX - (515) 223-0622

INDEX OF SHEETS:

1	COVER SHEET
2	TILING PLAN - OVERALL
3	TILING PLAN - NORTH
4	TILING PLAN - SOUTH
5	OUTLET PIPE PROFILE
6	DETAILS

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Reference to particular products, tradenames, or manufacturers is intended for clarity only and does not represent endorsement by the State of Iowa. Equivalent products or materials may be suitable, subject to the approval of the Engineer or Division.

I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT DESCRIBED BELOW WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA.

SIGNATURE: _____
NAME: CHRISTOPHER R. BAUER
DATE: _____ LICENSE NUMBER: 19737
MY LICENSE RENEWAL DATE IS: DECEMBER 31, 2017
PAGES, SHEETS OR DIVISIONS COVERED BY THIS SEAL: PAGES 1 THRU 6

S-H PROJECT NUMBER: 413270-0

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Iowa | Illinois | Missouri

ISSUED:	REVISED:
6/28/2016	-

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IOWA DEPARTMENT OF AGRICULTURE AND LAND STEWARDSHIP

DESIGN BY:	DRAWN BY:	CHKD. BY:
CRB	JMS	CRB

BLIZZARD
AML TILING REPAIR/REPLACEMENT

TOP SHEET

SHEET 1 OF 6

GENERAL NOTES:

1. THIS PROJECT CONSISTS OF THE ABANDONMENT OF EXISTING FIELD TILE THAT HAS COLLAPSED AND/OR FOUND TO BE DEFECTIVE, AND INSTALLATION OF NEW FIELD TILE AT THE BLIZZARD AML SITE. IN GENERAL THE WORK INVOLVES, BUT IS NOT LIMITED TO, THE ABANDONMENT AND CAPPING OF EXISTING FIELD TILE, INSTALLATION OF NEW FIELD TILE ADJACENT TO EXISTING, AND CONNECTING TO EXISTING INTAKES. CONTRACTOR TO PROVIDE BID ALTERNATE PRICING TO COMPLETE VIDEO INSPECTION OF TILING AS NOTED ON THE PLANS. DIGITAL COPY OF VIDEO INSPECTION TO BE PROVIDED TO ENGINEER AND DIVISION TO DETERMINE SERVICEABILITY OF EXISTING TILING. INSPECTION VIDEO TO CLEARLY IDENTIFY LOCATION OF ANY FOUND DEFECTS IN TILING. PENDING VIDEO INSPECTION RESULTS, IF DEFECTS ARE DISCOVERED, CONTRACTOR TO MAKE REPAIRS AT UNIT PRICES PROVIDED FOR OTHER WORK. NO ADDITIONAL COMPENSATION FOR MOBILIZATION WILL BE GIVEN.

2. CONTRACTOR TO MINIMIZE SITE DISTURBANCE AND KEEP CONSTRUCTION TRAFFIC TO A MINIMUM. ALL AREAS DISTURBED BY CONTRACTOR TO BE RESTORED AS NOTED BELOW.

3. CONTRACTOR TO REMOVE EXISTING SILT FENCE THAT IS IN CONFLICT WITH PROPOSED TILING ALIGNMENT. CUT SILT FENCE TO NEAREST POST AND INSTALL ADDITIONAL ZIP TIES AS NECESSARY.

4. MOUND TRENCHING SPOILS OVER INSTALLED TILING TO ACCOMMODATE SETTLEMENT. FINISH GRADE AREAS ADJACENT TO TILING AND/OR DISTURBED BY CONTRACTOR.

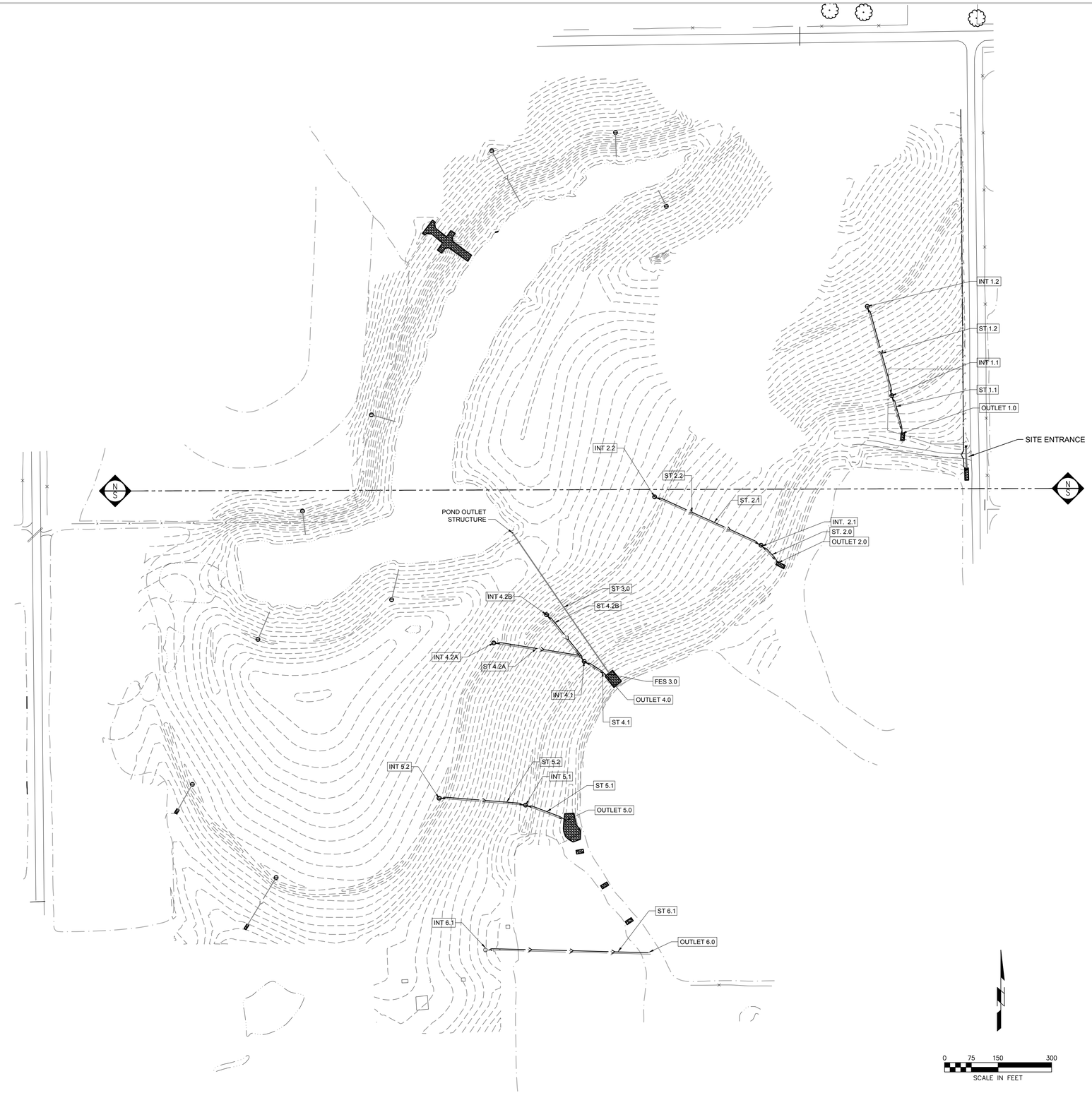
5. CONTRACTOR TO APPLY LIME AND BROADCAST SEED ALL DISTURBED AREAS. HARROW DISTURBED AREAS TO INCORPORATE LIME AND SEED. LIME TO BE APPLIED AT A RATE OF 5 TONS ECCE/ACRE. SEED (WINTER WHEAT) TO BE APPLIED AT A RATE OF 50 PLS/ACRE.

TILING DAYLIGHT NOTES:

1) REMOVE EXISTING DUAL WALL/PVC AT EXISTING DAYLIGHT LOCATIONS, AND CAP TILING AT LOCATION SHOWN, SALVAGE EXISTING RODENT GUARD AND INSTALL AT PROPOSED TILING OUTLET

2) DAYLIGHT PROPOSED TILING WITH 20 LF OF DUAL WALL HDPE OR PVC - INSTALL SALVAGED RODENT GUARD

#	ITEM DESCRIPTION	SPEC. SECTION	QUANTITY	UNITS
1	Mobilization	02100	1	LS
2	Tiling Removal & Disposal (All Sizes)	02300	206	LF
3	Tiling Caps	02300	17	EA
4	Tiling-(6")	02300	449	LF
5	Tiling-(8")	02300	1500	LF
6	Tiling-(10")	02300	304	LF
7	Tiling-(12")	02300	76	LF
8	Tiling Daylights	02300	7	EA
9	Pond Outlet Pipe Removal & Disposal (12" HDPE)	02310	416	LF
10	Pond Outlet Pipe (12" HDPE-Furnish & Install, Includes Anti-Seepage Collars)	02310	416	LF
11	Agricultural Lime, Subgrade (5 Tons ECCE/Acre)	02410	4.4	TON
12	Seeding (Winter Wheat)	02700	0.9	ACRE
13	Add Alternate - Tiling Video Inspection		1	LS



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CHKD. BY: CRB

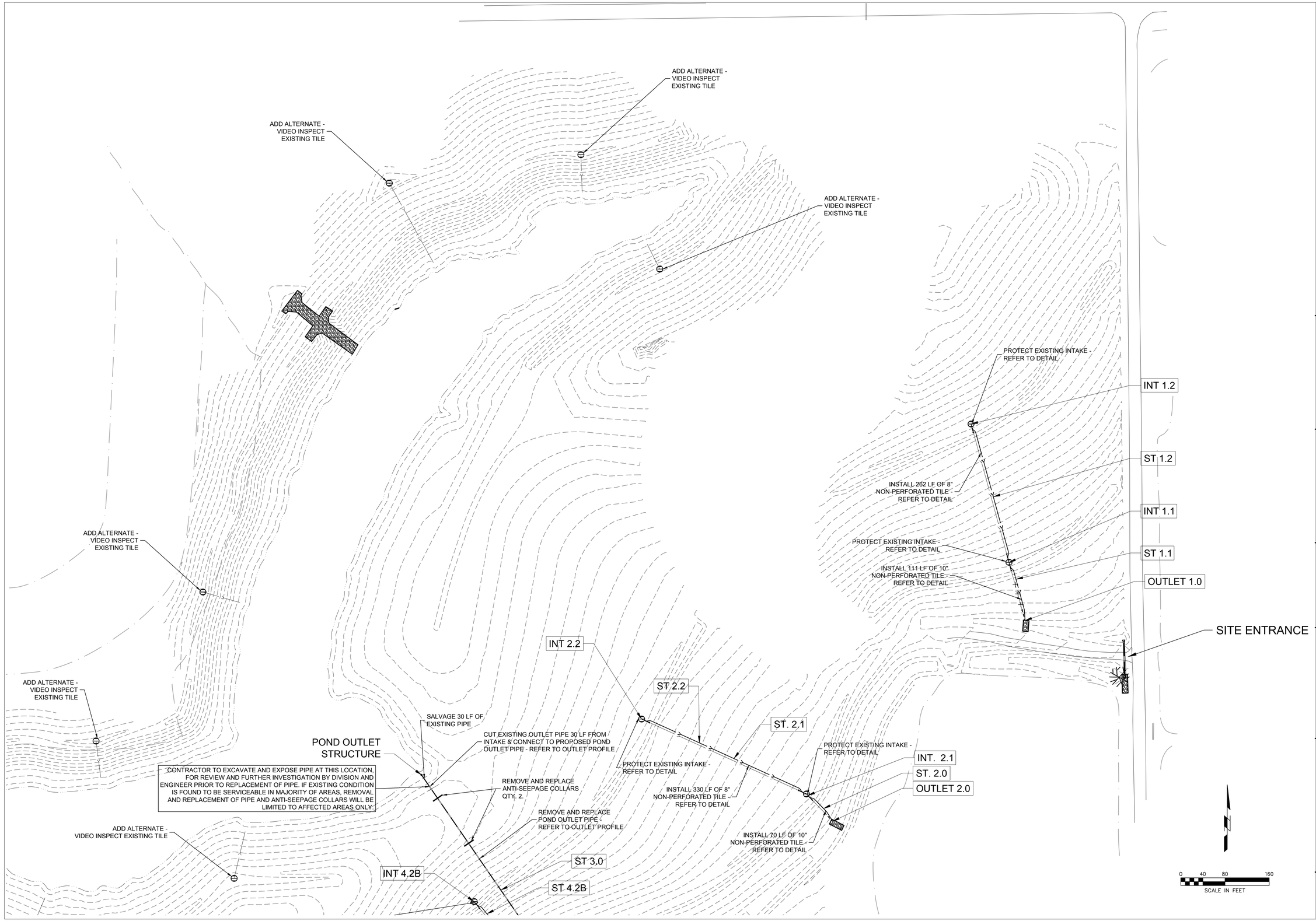
DRAWN BY: JMS

DESIGN BY: CRB

BLIZZARD
AML TILING REPAIR/REPLACEMENT

SITE GRADING PLAN - OVERALL

SHEET 2 OF 6



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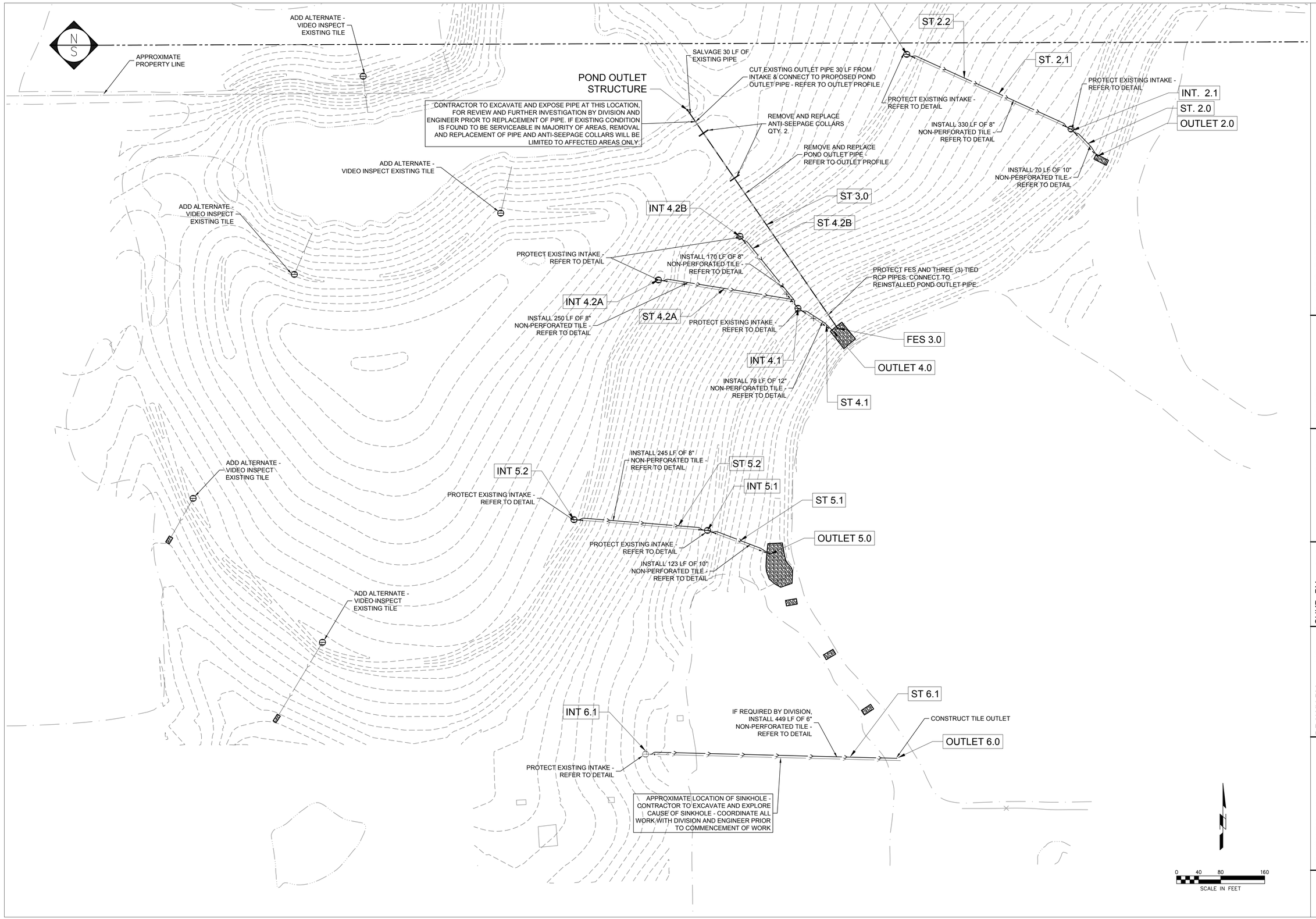
BLIZZARD
AML TILING REPAIR/REPLACEMENT

SITE GRADING PLAN - NORTH



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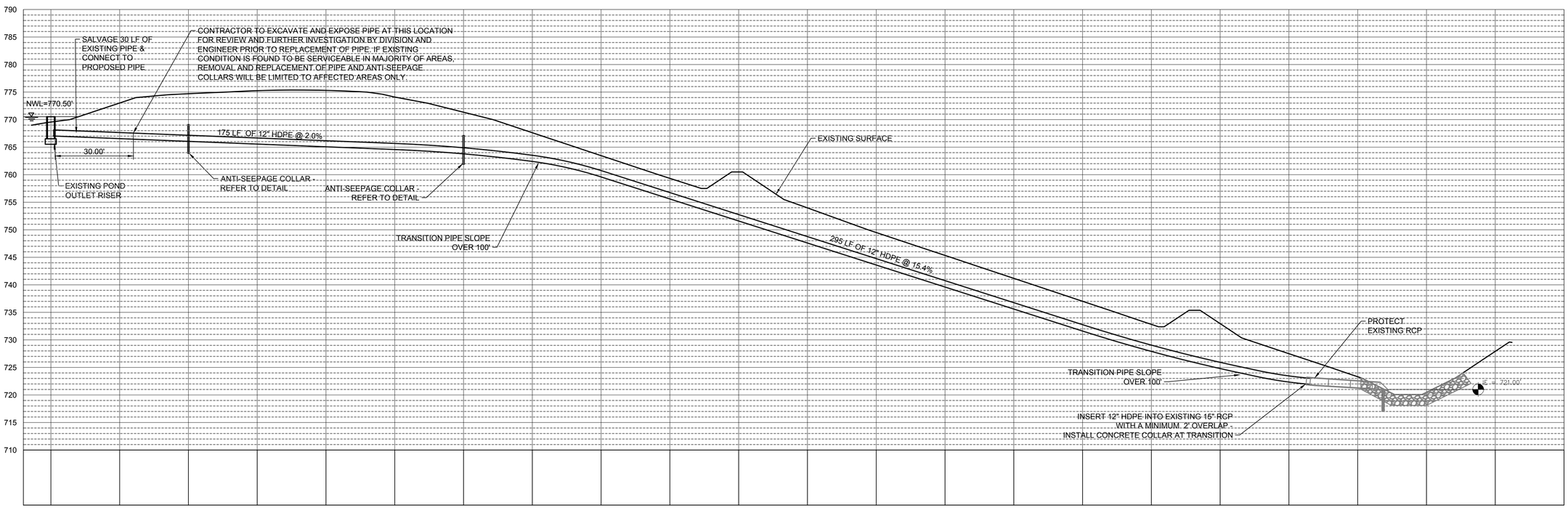
BLIZZARD
AML TILING REPAIR/REPLACEMENT

SITE GRADING PLAN - SOUTH

SHEET 4 OF 6



POND OUTLET PROFILE

HORIZ: 1"=20', VERT: 1"=10'

HORIZONTAL SCALE

0 10 20 40

SCALE IN FEET

VERTICAL SCALE

0 5 10 20

SCALE IN FEET

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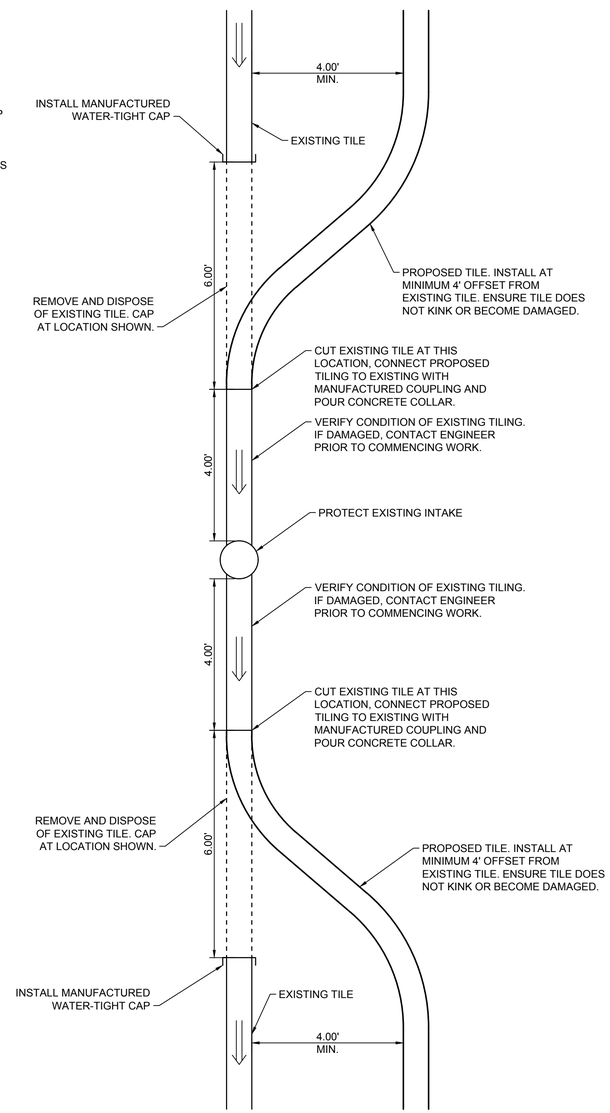
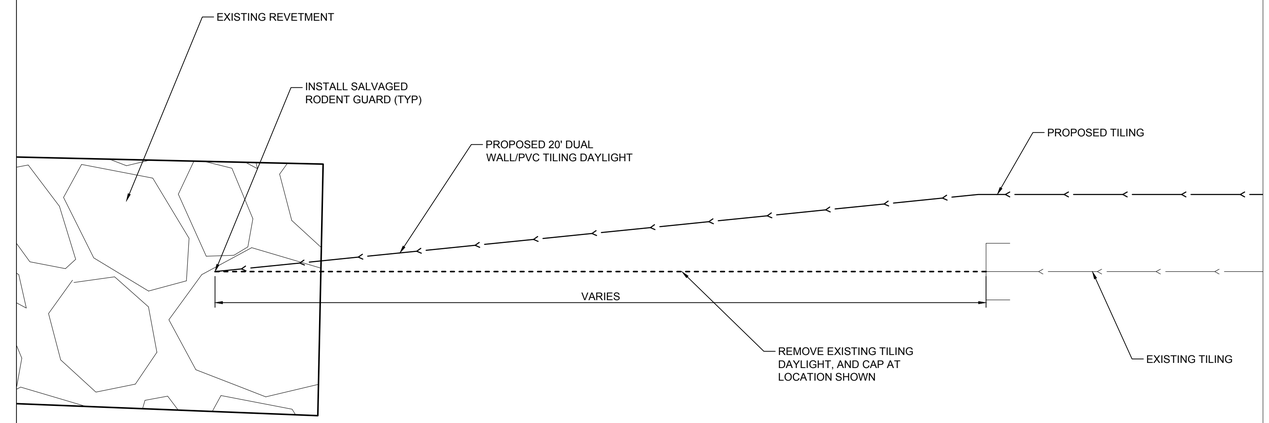
BLIZZARD
AML TILING REPAIR/REPLACEMENT

POND OUTLET PROFILE

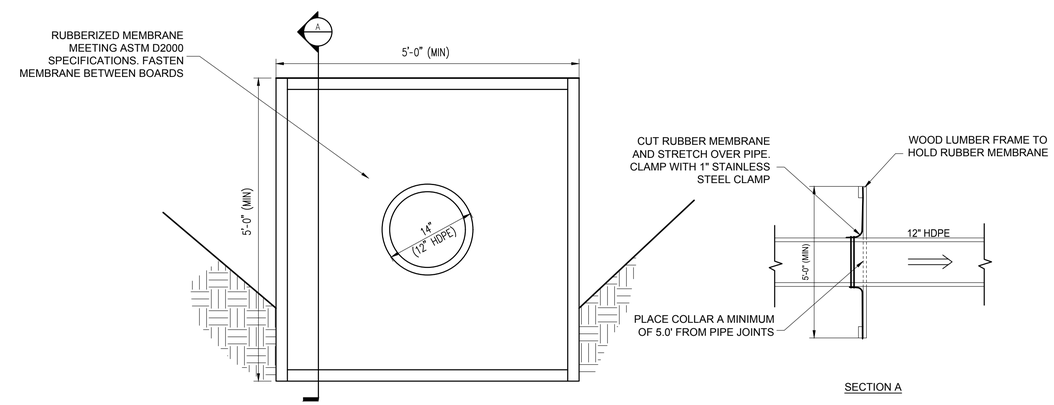
NOTES:
1. EXISTING TILING TO BE ABANDONED IN PLACE. CAP BOTH UPSTREAM AND DOWNSTREAM ENDS AT LOCATIONS SHOWN.
2. REMOVE AND DISPOSE OF ALL REMOVED SECTIONS OF TILING AND TILING DAYLIGHTS.
3. ALL CONNECTIONS TO HAVE CONCRETE COLLAR.



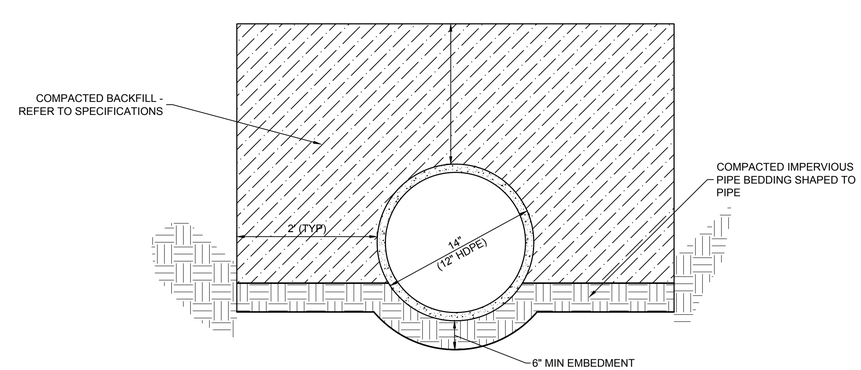
4 TILING INSTALLATION
NTS



3 TILING DAYLIGHT
NTS



2 RUBBER MEMBRANE ANTI-SEEPAGE COLLAR
NTS



1 12" PRIMARY PIPE BEDDING DETAIL
NTS

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DETAILS

SHEET
6 OF 6